

WEEKLY EDITION  
OF THETHOMAS G. NEWMAN,  
EDITOR.

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## APICULTURAL NEWS ITEMS.

## EDITORIAL AND SELECTED.

**Give us men!** A time like this demands strong minds, great hearts, and ready hands.

**The Northwestern Bee-Keepers' Society** will hold its annual convention in Chicago, Ill., on Wednesday and Thursday, Oct. 14 and 15, 1885—the first meeting being held at 10 a. m. The place of meeting will be announced next week.

**Mr. G. W. Demaree** remarks thus about the sheep-bees lawsuit: "If bee-keepers will take care of their rights now, they need not fear; but indifference may place them in like position to the fleet-footed hare that was beaten by the creeping tortoise. Let us profit by that old fable!"

**Mr. Geo. E. Hilton**, of Fremont, Mich., knows how to use printer's ink. The *Muskegon Journal* contains one-third of a column concerning his apary and honey, and advises all its readers to get honey with Mr. Hilton's label on it, and thus obtain the finest, purest and best in the world. That is one of the many very excellent methods of building up a home market, and probably only costs two or three nice boxes of honey (which was given to the reporter). He commenced the season with 45 colonies, increased them to 88, and has obtained from them about 6,000 pounds of honey.

**SPECIAL NOTICE.**—On January 1, 1886, the price of the Weekly BEE JOURNAL will be reduced to *One Dollar a Year*. This we have contemplated for some years, and only awaited the proper time to warrant us in issuing the Weekly BEE JOURNAL at the very low price of *one dollar a year*. That time has now come. We shall continue to improve the BEE JOURNAL, and it will maintain its proud position as the leading bee-paper of the World!

New subscribers will be supplied with the Weekly from now until the end of the year 1886, for \$1.25.

Those who have already subscribed for any portion of *next year* will have the time beyond January 1st doubled. These changes in the mail-list type will be made by Oct. 1.

**Are Workers Abortions?**—The following occurs in an essay on "Physiology in its application to grape culture:"

"Great men, as well as common folks, sometimes make great mistakes. Huber asserted that the neuter or working-bee, was nothing more nor less than 'an imperfect female.' That is mere conjecture, and will not answer in this matter-of-fact age. God never made whole races of his creatures mere abortions. He permits monstrosities occasionally, but never made so gross a mistake in the organism of an entire class."

The author of this paragraph ascribes to Huber sentiments which he never expressed or entertained. In his work entitled "Observation on Bees," he says:

"The discovery of fertile workers, made by Riem and confirmed by my own investigations, led me to conjecture that the entire class of workers pertained to the female sex. Nature makes no sudden leaps. The fertile workers lay drone-eggs only, like those queens whose fecundation has been unduly delayed. One step farther and they might be altogether sterile, without being the less feminine essentially. *I do not regard the workers as abortions or imperfect creatures.* They are endowed with too many noble faculties, too much unwearied industry and activity, and from their instincts spring too many marvels to permit me to consider them as abnormalities of their kind, or as imperfect beings in comparison with the queens. I believe that a rational philosophy will yet be able to reconcile all these difficulties."

This is widely different from the views ascribed to him, and is fully sustained by subsequent discoveries. To him, the workers appeared to be just what subsequent microscopic examination proved them to be—merely undeveloped females. Another critical writer remarks that it is "doubtless true that, if regard be had only to mere animal qualities, the queen is, in that direction more fully developed than the worker, and thereby becomes qualified to discharge properly her peculiar functions—the *perpetuation of the race*. This, however, does not constitute her a more perfect insect, absolutely, than the worker. The latter is quite as admirably adapted for her appropriate duties, and is, therefore, as regards the purpose and end of her being, as perfectly organized and as fully developed as the former. Both certainly proceed from the same kind of egg. Development proceeds in each in like manner, and in the same direction, from the hatching of the egg up to a certain point. Thence, owing to the circumstances in which each is placed and the influences to which it is subjected, development diverges and tends to different issues. In the queen it culminates *corporeally*, in the maturation of animal functions and procreative power. In the worker, it is made to take a different direction; the growth of physical organism is repressed indeed, but instead thereof, her physical qualities, or what may be termed her mental faculties, are extraordinarily unfolded and intensified. Hence, if manifestation of mind, however subordinate in grade or qualified in character, be entitled to higher consideration and regard than mere corporeal qualities or physical organization, the worker might claim a more elevated rank in the sphere of development than the queen, whose physical endowments are certainly of a lower order, and limited to a narrower range. Each, however, is perfect, as regards herself, her assigned relations, and the purpose and design of her existence.

"It is precisely this undeveloped femininity of the workers, and the bringing out, instead, of other and higher faculties, which qualifies them for the functions devolved on them by the Creator—that of foster-mothers, protectors of the brood, and providers for the subsistence and *preservation of the family*. Whereas the sexually more fully developed inmates of the hive—the queen and the drones—physically less endowed, are designed and serve for the *perpetuation of the race*. Each kind has its proper sphere, each its appropriate duties assigned to it; and, by its organization and instincts, each is specially and fully qualified to discharge these duties. The proclivities, qualifications and habits of each are, in the main, as distinct and characteristically different from those of the others, as if each belonged to an entirely different class of insects. Yet the three kinds are so yoked together—so interwoven in action, so fitted for each other, so dependent on each other, and so complementary to each other, that neither could permanently exist without the co-existence—at certain seasons at least—of both the others."

**When beeswax** is chewed, says an exchange, it should have no disagreeable taste and must not stick to the teeth. In the adulterated wax, the nature of the foreign material can generally be detected by the taste; the addition of fat can generally be readily detected. If it sticks to the teeth, the presence of resin may be assumed. A simple method of detecting the presence of fat in wax consists in melting it, and placing a drop on a piece of woolen cloth. After it is perfectly cold and solidified, pour on a few drops of 90 per cent. of alcohol and rub the cloth between the hands. The wax will be converted into dust, and will easily separate from the cloth if it contains no fat, and will leave no stain; when it contains fat it will leave grease-spots.

**The Rural New Yorker** of this week is a treasury of fertilizing knowledge. It is a special number devoted to the whole story of how plants grow; what elements the plant must find in the soil to produce good crops, and showing from what source can, in the best and cheapest manner, be obtained such of them as are missing, or nearly exhausted, in the soil. Our readers cannot afford to neglect so important a subject; and, to post themselves, should send for a copy, which will be mailed them *free*. Address, 34 Park Row, New York.

**We have received** from Messrs. Cupples, Upham & Co., publishers, Boston, Mass., a poultry pamphlet, price 50 cents, which is made up of a phonographic report of the addresses and discussions at a meeting of the best and most widely known poultry experts in the country, held in the interest of this important industry, at Boston, on two successive Saturdays, March 7 and 14, 1885. Its fresh and peculiar value will be found in the fact that the observations are those of experienced and practical poultry raisers, in place of mere poultry fanciers—of actual farmers, rather than of amateurs. It will prove to be encyclopaedic in its suggestions respecting the choice, the breeding, and the care of poultry, and will readily show that it abounds in the very kind of advice of which all poultry raisers are in constant pursuit.



WITH  
**REPLIES by Prominent Apirists.**

**Fertilizing Queens.**

**Query, No. 108.**—1. How many queens can be fertilized in one nucleus colony in one month? 2. Can one queen be fertilized, and shipped from a nucleus colony every week?—S. H.

We think if you rear 2 queens in a month, you will be doing well. Introducing virgin queens from an incubator is an unsafe method, although many claim to succeed.—**DADANT & SON.**

1. A queen every 14 days is about my average. Some nuclei do better, others not as well. 2. No; not by any process that I know of.—**G. M. DOOLITTLE.**

No definite time can be given, so much depends upon the weather, number of drones, and quick mating.—**PROF. A. J. COOK.**

1. That depends upon the flow of nectar and the strength of the nucleus. Again, some queens do not take their bridal trip for 7 or 8 days, and never before 5 days after hatching. I should say about 3 queens in a month at the best. 2. No; not if allowed to lay before introducing another.—**DR. G. L. TINKER.**

1. That depends very much upon circumstances. Queens are sometimes lost when taking their "wedding flight," and sometimes "balled" to death by the bees. In view of all the accidents that may befall the young queen, I should say one, two or three at the most. That may look indefinite, but it is just that way. Queen-rearing is not the lucrative business that many imagine it is. 2. No.—**G. W. DEMAREE.**

1. It will depend wholly and entirely upon the condition of the nucleus, the state of the weather, and the chances of loss while on the mating trip. 2. Yes, if the conditions are all right, and good luck attends the operation. In some seasons more than half the queens are lost on their wedding tour; in others the loss is very slight indeed.—**J. E. POND, JR.**

I should not expect to average over two. Sometimes queens are quite slow in becoming fecundated. Again, I like to have them lay in the combs 5 or 6 days before shipping. If the queen is taken out when the combs contain only her eggs (as it sometimes happens), the bees are liable to devour them; when, if a part have hatched with larvae, all are preserved.—**JAMES HEDDON.**

Queens usually lay when 10 days old. I usually allow a queen to lay a day or two before shipping her. Taking the whole season through, I find that a queen ever two weeks would be

nearer the average than one every week. If a queen 4 or 5 days old were introduced at the time of shipping the laying queen, it would be possible to ship a queen every week; but I have had poor success introducing queens more than 2 days old.—**W. Z. HUTCHINSON.**

**Consumption of Honey by Bees.**

**Query, No. 109.**—1. How much honey will one pound of bees eat in 24 hours? 2. How long will a pound of bees live on the honey with which they fill themselves when caged?—**T. S.**

1. I have had no experience with this. 2. If placed in a dark, cool place, they will live about 4 days.—**G. M. DOOLITTLE.**

1. I could not tell exactly. I always put up too much, and then feel safe. 2. I think that they will live about 36 hours.—**JAMES HEDDON.**

1. Bees knocked about in a cage will eat more than when quiet in their hives. If the cage were well agitated, a pound of bees might consume an ounce of honey in 24 hours. 2. Thirty or forty hours.—**DR. G. L. TINKER.**

Any answer is, in a measure, theoretical. A test, of course, would decide it, but it will be almost an impossibility to make such test thorough and complete; and when made it would prove so expensive that the ascertained results would not pay for the time and trouble.—**J. E. POND, JR.**

1. The question is indefinite. In the absence of brood less than one ounce of honey will sustain a pound of bees 24 hours. 2. A pound of empty bees, when thoroughly filled with honey, will weigh two pounds. According to this, they ought to carry enough honey at one aggregated load to sustain life over 16 days, if they could utilize the honey in the absence of some place besides their honey-sacs to store it. I have found that the ordinary package of bees—called a "pound"—can be shipped to any point in the United States or Canada on less than a half-pound of properly made soft candy.—**G. W. DEMAREE.**

1. I do not know, only it will vary greatly. 2. This will also vary; often more than one hundred.—**PROF. A. J. COOK.**

**Black, Shiny Bees.**

**Query, No. 110.**—What is the cause of the heads and abdomens of young bees being black and shining as though having been hit, dragged out and killed by perfect bees; what is the cure for it?—**W. G.**

Possibly worms had been at work in the combs, and injured the young bees.—**DR. C. C. MILLER.**

I have never had a case of this kind. I suppose it might be caused by worms or chilling of the brood.—**JAMES HEDDON.**

I have never found this true. Old bees are often so. The hair becomes pulled out; or in age they become bald. Why not?—**PROF. A. J. COOK.**

I have often seen old bees with black and shining abdomens, but never "young bees."—**DR. G. L. TINKER.**

Bees that are partly crushed between the combs of honey in manipulating the hive, look thus when liberated, and are treated by the other bees as described.—**G. M. DOOLITTLE.**

The best answer I know of to this question is found in "Dzierzon's Theory." It would require a larger amount of space than can be given here to give a comprehensive answer.—**J. E. POND, JR.**

We think that you are mistaken in supposing these to be young bees. The bees whose heads and abdomens are shining are some of the very oldest bees. They are usually somewhat smaller than the healthy bee, and their wings often show that they have worn themselves out. The cause of their being so shiny is, that they have lost their hair by much travel. Robber bees are the worst looking in this respect.—**DADANT & SON.**

I believe such specimens of bees as you describe is the out-cropping of impure blood in the parent bees. I have seen specimens of these out-cropping bees that were as black and shiny as a polished boot; and I have seen them as green as a green bottle. The only cure for it is to change the blood of the bees. A few such bees in a colony have never hurt the working quality of the colony, so far as I have seen.—**G. W. DEMAREE.**

**Local Convention Directory.**

1885.	Time and place of Meeting.
Sept. 8-12.	Iowa State, at Des Moines, Iowa. Wm. Goss, Sec., Davenport, Iowa.
Sept. 10.	Patenlaga, at Ramer, Alabama. M. G. Rushton, Sec., Raif Branch, Ala.
Sept. 23, 24.	Kentucky State at Covington, Ky. J. T. Counley, Sec., Napoleon, Ky.
Oct. 10.	Wabash County, at N. Manchester, Ind. J. J. Martin, Sec., N. Manchester, Ind.
Oct. 10, 11.	Western, at Independence, Mo. C. M. Crandall, Sec., Independence, Mo.
Oct. 14, 15.	Northwestern, at Chicago, Ills. W. Z. Hutchinson, Sec.
Oct. 15.	Progressive, at Macomb, Ills. J. G. Norton, Sec., Macomb, Ills.
Nov. 5, 6.	N. J. & Eastern, at Trenton, N. J. Wm. B. Treadwell, Sec., 16 Thomas St., N. Y.
Dec. 8-10.	Michigan State, at Detroit, Mich. H. D. Cutting, Sec., Clinton, Mich.
Dec. 8-10.	North American, at Detroit, Mich. W. Z. Hutchinson, Sec., Rogersville, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—**ED.**

**The Illinois State Fair** will be held in Chicago during the week commencing Monday, Sept. 14, 1885, and promises many attractions.

☞ We want one number each of the **BEE JOURNAL** of August, 1866—February, 1867.



## CORRESPONDENCE

**Explanatory.**—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark ○ indicates that the apiarist is located near the centre of the State named: ♂ north of the centre; ♀ south; ♂ east; ♀ west; and this ♂ northeast; ♀ northwest; ♂ southeast; and ♀ southwest of the centre of the State mentioned.

For the American Bee Journal.

### Fertilization of Queens.

REV. M. MAHIN, D. D.

Mr. Henry Alley, in his very valuable "Handy-Book of the Apiary," expresses the opinion that if one has a considerable number of colonies of Italian or Syrian bees, and half a mile away there are numerous colonies of black bees, not one queen in 25 will be mismated. From this opinion I must respectfully dissent. If one has a small number of one race of bees, and from one to two miles away there are a considerable number of another race, it is not uncommon, as I know by observation, for one-half the young queens to mate with drones of the other race. When I had the only Italian bees in this vicinity, a black queen five miles away produced banded bees; and it is almost an absolute certainty that she had mated with one of my drones.

It is impossible to tell with any certainty how far drones and queens will fly. It is probable that the former fly several miles, and queens may fly further than is generally supposed. It is my opinion that a young queen is never fertilized on her first flight, no matter how many drones there may be in the air in the vicinity of her hive. I have watched a great many for the purpose of finding out all that may be known concerning their habits, and my observations are to the following effect:

A young queen, before she comes out in earnest, familiarizes herself with the locality of her hive. She comes out and flies around in the vicinity of the hive for not more than five minutes at a time, and then enters the hive and remains for about five minutes. During the time she is on the wing, she may be observed to approach her hive, in some cases several times, without entering, and she is probably not out of sight of it at any time. I have observed five of these five-minute excursions in less than an hour; but I have never known a queen to return, having mated with a drone in less than 17 minutes from the time she left the hive. I do not say that they never do mate and return in less time than that, but none that I have observed have done so. This gives a queen

time to travel several miles, if need be, and her frequent short flights seem designed to enable her to take a longer flight, if necessary, without getting lost.

Now I venture the opinion that, other things being equal, a queen is quite as likely to mate with a drone belonging to a colony half a mile or more away as with one from a colony in the same apiary. The instinct that prompts the queen and drone to fly abroad, prompts them to leave the vicinity of their homes, and thus prevents in-and-in breeding.

I think it beyond dispute that drones have places of rendezvous, where, from I know not how far, they congregate. In my early bee-keeping days, from 12 to 15 years ago, the place of meeting was in the edge of a woods a quarter of a mile east of my house. In 1883 and 1884 the playground seemed to be partly over my own premises, and this year over a woods pasture just south of my place. Now, it is a question of some importance whether in a given locality there may not be more than one place of congregating, and also whether the resort of my drones may not be farther away than that of some other drones. In that case my queens would be more likely to meet drones from a neighbor's apiary than from my own.

The above facts and surmises have a bearing upon what I am about to relate. I had in the spring 30 colonies of bees, all except a very few were Syrians, the rest being Italians. There were but 2 colonies showing any black blood, and I presume that in an area of two miles in diameter there are not as many colonies of bees belonging to other persons as I have, and I am confident that there is not a colony of blacks within half a mile. I have purposely allowed my bees to have a liberal supply of drone-comb, and the number of drones has been large; and yet, out of 31 queens reared, 23 have mated with black drones, and of the 8 remaining 2 or 3 are doubtful.

I have never before had such an experience, and I am at a loss to account for it. Have black drones come from a mile or so away and established a resort into which my queens have gone? Or have my queens passed by the resort of their male neighbors, and gone to that of the drones of some other locality? Or is there somewhere in this vicinity a colony of blacks having drones that are more amorous and enterprising than my Italians and Syrians? One of these hypotheses must be true, but which one I have vainly tried to ascertain. Can any of our apiarian savants throw any light upon it? There is no doubt at all that these queens mated with black drones, and not with mixed ones, because they produce many bees that are entirely black; and the queens themselves are pure Syrians and Italians.

It is commonly recommended to rear queens early in order to have them purely mated. In this I have generally failed. My early queens would not mate with my early drones until the weather became warm—al-

most hot—and by that time black drones were plentiful. More of my queens are purely mated in the late summer and early autumn than in the earlier months. The reason may be that at that time drones and queens do not venture so far from home. I hope to supplant my mongrels by purely-mated queens before the season closes.

New Castle, O., Ind., Aug. 22, 1885.

For the American Bee Journal.

### Excellent Season so Far.

B. T. BALDWIN.

I commenced the season of 1885 with 39 colonies, sold one, and bought one 4-frame nucleus. I divided 3 other colonies for queen-rearing, so I did not obtain any honey from them. I have sold \$102 worth of bees, have taken 5,400 pounds of extracted honey, and have increased my apiary to 75 good colonies. My bees made some of the largest daily gains that I ever heard of, from English clover.

Basswood bloomed here on June 29, and ceased blooming on July 8. It did not seem to secrete much honey in proportion to the amount of bloom; or if it did my bees failed to pay the necessary attention to it. I got only two barrels of honey with basswood flavor, and could scarcely tell, by the bees, when it ceased to secrete honey.

On July 10 I put a fair colony of hybrid bees on the scales, and it gained 24½ lbs. that day; on July 11, it gained 28 lbs.; on the 12th, 31 lbs.; on the 13th, 27 lbs.; on the 14th, 23 lbs.; on the 15th, 11 lbs.; on the 16th, 4 lbs.; and on the 17th they lost 1½ pounds.

All of this was from English clover, making 148½ pounds in seven days. I had more than a dozen men to time them, and they all say that the colony did not gain less than 2 pounds in any hour of any day that they were timed; and the colony was not nearly my very best. I had nine combs in the upper story, and exchanged empty combs at night for full ones; and I believe if I had taken as good care of all the rest, some of them would have done better than this particular colony.

Last fall, when I packed my bees for winter, there was one little colony of hybrids that I intended to unite to some other colony; but when I opened the hive they had 12 pounds of honey in four combs, and about 2 quarts of young bees, so I thought that I would try and winter them. To my surprise this spring they were as healthy as any colony in my apiary, and began to breed lively when clover commenced to bloom. I put them in a Heddon hive with a crate of 28 one-pound sections, and when they had the foundation drawn out, I raised up the crate and put on another; and they had them both finished in a short time, excepting 8 sections, when I took the crates off and put on an extracting super, and I extracted 175 pounds after that.

The grass-hoppers have ruined the clover-seed crop in this locality this

year. I do not think that there will be a bushel of seed in this county. They cut off the blossoms, so the black bees worked on the red clover.

Marion, © Ind., Aug. 26, 1885.

Gleanings.

### Gall-Mites on Plum-Trees.

PROF. A. J. COOK.

A few days since I received some plum leaves covered with galls on the under surface. They came from F. A. Snell, of Milledgeville, Ills., who writes that they are very abundant on some wild plum-trees in his yard. He asks whether there is any danger of their attacking the leaves of his tame plum-trees. I at once recognized these galls as the excrescences formed by the gall-mite, a species of *Phytoptus*. These are injurious to the trees which they infest; and as the wild and cultivated plum are so closely related, there must be danger that an insect which attacks one will also attack the other if in the vicinity.

The galls are on the upper side of the leaves, and are hairy, teat-like processes, often so crowded as to be in clusters of five or six in a place. They are yellowish or brown in color, though the color may have changed somewhat, as the leaves were considerably dried up. The leaves appear as seen in Fig. 1. These galls

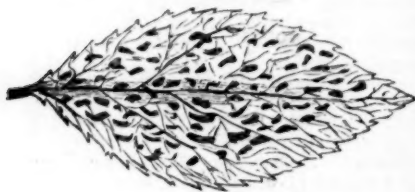


FIG. 1.

are often on the under side of the leaves, so that the mites can leave the galls and pass out to a new place on the leaf, where by irritation a new gall is formed. The mites which, for these galls, are so minute that they are hardly visible to the unaided vision (they are oblong, Fig. 2), have four feet and four pairs of hairs on the body. These mites lay eggs in the galls, which produce other mites, and thus the galls become very numerous during the season.

It is of more interest to bee-keepers to know that our maples and basswoods suffer from species of *Phytoptus*. *Phytoptus abnormis*, Garman, attacks the basswood. *P. quadripes*, Shimer, the soft maple, and *P. acericola*, Garman, the sugar maple. A soft maple in our College apiary is badly attacked by these mites.

These mites, as will be seen above, have only four legs, while all other mites (mites are the lowest order of the sub-class *Arachnoids*) have eight legs. There are many mites of interest to us. The sugar and cheese mites work on the articles of food which gave the names. The itch mite causes the pustules on the hands, usually between the fingers of persons suffering from that disgusting

disease. The red spider is a species of mite, which is often very injurious to house-plants when kept in very dry rooms, and to evergreens, and other plants and trees in very dry seasons. Frequent and copious drenchings with pure water will usually destroy these red spiders.

The remedies for the *Phytopti* are, sprinkling with sulphur, and picking and burning affected leaves, or burn-

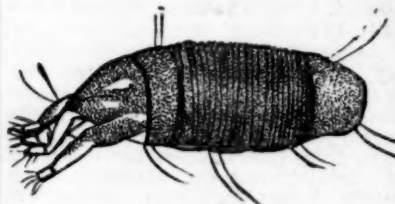


FIG. 2.

ing the entire plants and tree. Picking the leaves is the best plan, if commenced as soon as the galls are seen. Agricultural College, ♀ Mich.

For the American Bee Journal.

### Human Enemies of Bees.

HENRY ALLEY.

In adding my name to the list of those who have joined the "National Bee Keepers' Union," I would like to say a few words concerning an experience which Mr. John Gould and myself had, here in Wenham, some 19 years ago.

Mr. Gould, at that time, kept the largest number of colonies for the production of comb honey in Essex county. His success for awhile was rather better than the average bee-keeper in New England. One season he succeeded in getting an extra large crop of comb honey, and increased his apiary to about double what it was in the spring. This was more than his neighbors could stand. They said that as Mr. Gould had but one acre of land, the larger part of his crop of honey was stolen from the flowers grown on other peoples' land, and so they commenced the meanest kind of a warfare upon the bees and their owner. One of Mr. Gould's neighbors, quite early in the spring, opened wide a chamber window and placed some honey in the room, to entice the bees to enter it. As there was no forage in the fields, the bees entered the window for the coveted sweets, and when they were entering the room, by thousands, the window-sash was lowered to within half an inch, thus leaving ample room for the bees to enter, while they could not readily find their way out. As the bees gathered on the window, our "christian" neighbor inside killed them by threshing them with towels. This kind (?) neighbor claimed that he killed the bees by the bushel! Although the bees were being slaughtered before the owner's eyes, Mr. Gould was powerless to prevent it, and not being a "fighting man," had to "grin and bear it." This sort of

warfare had not long continued when the idea struck this enemy of the bees, that poison would be a much quicker and more effective method for getting rid of them, so poisoned honey was set in several places; but not understanding how to prepare food for feeding bees, it was not much of a success; still our friends did not give up the idea of poison until I inquired of some of them whether or not the same poison used for destroying the bees would not be equally as effectual in killing dogs, cattle, horses, etc. They soon discovered that the game of "poison" could as well be played by two persons as one.

Then another idea struck him: "Let's call a town meeting, muster our forces, and vote to have the bees removed from the town." This was a partial success. The meeting was called, and a vote was passed to have the bees removed from town. Who was to remove them, where they were to be taken, etc., were questions that caused considerable trouble to the howlers. Finally, nothing was done about it, as each one was afraid to undertake the job to remove the bees, and each one stood back waiting for some one to commence operations. We were hoping some one would have attempted it. Wouldn't there have been "a circus?" I think there would, for I certainly should have offered my services, and I am quite sure that I could have put the bees in proper condition, so that none of the performers would have lacked sufficient energy in any of the antics they would have undertaken to make the thing a complete success.

The argument used by the howlers against the bees, was about as follows: They claimed that the bees were a nuisance anyway; that there was great danger of people and horses being stung while passing Mr. Gould's apiary, though no person or animal had been stung; they also claimed that the bees destroyed the fruit by taking the honey from the blossoms; also that they ruined the ripe fruit. Every thing that could be brought against the bees was hunted up and made the most of, though nothing at all was proven by a particle of evidence.

So far as destroying fruit by taking honey from the flowers, that is nonsense; in proof of which I will invite any one (who entertains the above opinion) into my garden to look at my fruit trees with their heavy loads of fruit. Although the fruit is but about half-grown, the trees are breaking down from the heavy weight upon them.

When I state the fact that I had in my apiary, this year, more than double the number of colonies that Mr. Gould ever had, certainly any one would say (as such is a fact) that the bees are a great benefit to all growers of fruit, in fertilizing the blossoms. One old farmer, who had kept bees for forty years, made the remark in our town meeting, that "he had seen the bees on his barn-yard manure sucking the honey from it, and he did not believe the manure was as good on



account of it." Consumers of honey should understand that bees do not gather honey from manure. Occasionally, in a very dry time, they may be seen about manure in search of water, but not honey.

Mr. Gould and myself fought out this battle the best we could; we had no one to help us, as a well established bee-paper was not in existence at that time. (The AMERICAN BEE JOURNAL was in its infancy, and struggling to reach its present state of prosperity). Many of its oldest readers will call to mind the articles relating to the Wenham bee-controversy. The "fools" of Wenham were the "laughing-stock" of the whole world, as every paper, far and near, were poking "fun" at the town-meeting, and their attempt to move the bees, and at the idea that bees injured fruit!

The result of this controversy was that Mr. Gould, when he got ready, removed his family and bees to a neighboring town, and has not since been molested by troublesome neighbors; and I have continued to do business here for 28 years. My disposition is such that I cannot be driven from town. I am more of a "fighting man" than my friend Gould, and if a town-meeting were held every day, I could not be driven from my place of business.

Herewith I send my membership fees. I hope that one million dollars may be raised to defend the bee-keepers in their rights.

Wenham, 6 Mass.

For the American Bee Journal.

### Bee-Keeping in Virginia, etc.

FRIEDEMANN GREINER.

If I am not mistaken, it is generally accepted as a rule, that bees, when gathering honey and pollen, do not extend their visits over more than one class of plants (at one trip); however, I had occasion to notice, this summer, their changing from blue-thistle (the main honey-plant in this part of Virginia) to the blossom of plantain (*plantago lanceolata*), then back again to blue-thistle, etc., establishing the fact that they will not always strictly adhere to the rule.

About the "Union:" It is really wonderful how few of the fraternity take an interest in this just cause. Arise, fellow-bee-keepers, and take hold of this matter. Do not be as unjust as to be willing to reap where you do not sow. I will not get \$50 for my summer's work, but I feel it my duty to stand my share of the defense.

On page 507 is a letter with the heading, "Wonderful Honey-Yield and Increase." I would like to say a few words about this increase. No mistake, it looks big, "wonderful!" this increase of 24 from 21! but if all the particulars were known, perhaps it would appear far less wonderful. I believe that all of the bee-keepers, that have had a few years of experience, could, with the necessary combs and a good honey-flow, or by feeding, accomplish the same feat. Such re-

ports, without specifications, do us no good, save that we are informed of the good honey-flow of a particular locality.

I cannot make as good a report as the one mentioned above, as I have not only not increased, but I had to unite some colonies in order to get forces together so that they might gather enough honey to winter on. I had 128 colonies in one apiary last spring, and now there are only 120; and I took only 200 one-pound sections full of honey.

Another apiary of 28 colonies (2 miles from the other), I managed with better results. The average yield was 21 pounds per colony; and no increase whatever. The bees of this last apiary were in smaller hives, with a capacity of an eight-frame Langstroth hive; the other 128 colonies were in ten-frame Langstroth hives. The result proved the superiority of the smaller hive for this location, at least in such a poor season.

White Post, 8 Va., Aug. 19, 1885.

Philadelphia Press.

### Bees Working in the Sections.

REV. O. CLUTE.

The one-pound sections for comb honey have become very popular. They are attractive in appearance, and hence sell well. They hold about the quantity an ordinary family desires for one meal. In some quarters the two-pound sections are used extensively, but the tendency is to the smaller section. In buying sections, be sure that they are clean, and that they are accurately made, so as to fit together neatly and firmly. Nearly all the sections are now dovetailed. White poplar is much used in making them, because it is easily worked, and makes a smooth, clean, sweet section.

The hives made in the last few years are mostly intended to take on a section-case for holding these sections. This case fits down close on top of the brood-chamber, and then the top of the hive fits on the case and becomes its top. These cases hold the sections and bring them close down to the tops of the brood-frames, leaving a passage of about three-eighths of an inch between.

Sometimes bees are a little slow about going to work in sections. They will fill the brood-chamber with honey and then swarm, refusing to store in the sections. This can usually be overcome by having one or two of the centre sections already full or partly full of honey. If you saved carefully the partly filled sections last fall, you can now use them very profitably by putting one or two of them in the centre of the sections on each hive. The bees are at once attracted into the sections, and almost always will go to storing in them immediately—provided there is any honey in the fields for them to store.

It is always best to use starters in the sections. A starter is a piece of comb, or of comb foundation, put in

the section just where you want the bees to begin work. If you have nice white comb, you can cut this in small pieces and fasten a piece in the centre of the top-bar of each section. To fasten these comb-starters, you can use a cement made of one-fourth resin and three-fourths beeswax. Melt these together, dip the edge of the starter in the cement, and set it quickly where you want it. The cement cools rapidly, and holds the starter firmly.

Of later years nearly all producers of comb honey are using starters of comb foundation in the sections. For this purpose very thin foundation is used. A very small piece of the foundation will do, but if it nearly fills the section, so much the better. This foundation starter can be fastened in the centre of each section by carefully pressing the edge of it down on the centre of the top-piece with a knife. Where many bees are kept, this process is rather slow, and a small foundation fastener is used that does the work quickly and well.

As fast as sections in the centre are filled with honey and sealed, it is a good plan to remove them, moving the partly filled ones to the centre, and putting empty sections with starters at the outside.

Iowa City, 10 Iowa.

For the American Bee Journal.

### Wintering Bees.

MOUCH AMIEL.

The time has arrived, at the North, to begin to prepare for wintering our bees. First, is it certain that all varieties of honey are devoid of poison? If not, why not extract the honey and give the bees food known to have no poison, namely, pure cane-sugar syrup. If it is suspected that pollen is the cause of disease, why not remove the frames that contain it and return them in the spring, as it is known that bees do not need it in the winter; or substitute for it meal in the spring.

If it is cold that causes bee-diar-rhea, why not keep the bees warm? If the bees are in a cold cellar or cave, why not warm it with an oil-stove? Do you ask how warm? Well, so warm that a single bee may at any moment traverse any part of the hive. How warm may the room be and the bees not become uneasy? To the point that they begin to fan and hang out. But suppose they do hang out, what of it? If the frames were hung on two sticks in such a room or cellar without a hive, would they not winter well, the feed being healthful?

If the repository is too damp, why not place some unslaked or fresh lime in it, to gather the moisture? What good does the moisture in the cellar do? May it not be injurious? Now, if we have our bees put up for winter, thus conditioned, why will they not survive for 160 or 170 days or more?

To catch a queen, brush her with the finger into a basin of water.

Fargo, 6 Dakota.

Journal of Horticulture.

**Syrian Bees Unmanageable.**

A LANARKSHIRE BEE-KEEPER.

During the month of September, 1884, I arranged my colonies to stand the winter and spring, marking those hives whose colonies I wished to swarm and those not. Not only have I had my wishes fulfilled, but notwithstanding the very untoward and cold season they have done well—far beyond my expectations. The only honey-storing days the bees have had this year, since April, were the days of the last week of June, and from July 20th to the 29th, with two wet days during that time. At present my colonies have stored about 70 pounds of surplus honey; with a continuance of this fine weather for another week, each should yield 100 pounds.

My little apiary giving so much satisfaction, is not only cheering to me, but will, I hope, be encouraging to others. There are many bees near me, and if the bee-keeping readers reverse the foregoing picture, they will have an idea what they are like. Good management has this year given abundance of honey, but where the management has been different, with the variable season, the result is the same.

The introduction of foreign varieties of bees and their crosses has necessitated changes in their management. Their tempers, too, are greatly changed from the aboriginal black bee, and so much so with some varieties and crosses that bee-keeping to many is an annoyance instead of a pleasure.

In consequence of many imported Ligurian bees showing both temper and markings of the Cyprian bees, together with an impaired constitution consequent on rearing queens from weak colonies, they fail to give the satisfaction which they did when first imported. The Carniolan bees are not only good honey-gatherers and good breeders, but are very mild-tempered and hardy, requiring neither smoke, carbolic acid, nor a bee-veil when manipulating them. Their only fault is the long time they fly when swarming, and their strong inclination to return to the place upon which they alighted if at all roughly handled. Second or after-swarms, by having a great many queens, are troublesome, clustering sometimes in a dozen places, and will send off a swarm from two or three combs with full scope of a colony. The Cyprians and Syrians are liable to do the same, but are no exception to the old race, and but prove that giving room while young queens have been neglected, will not prevent swarming.

Of the Syrians, the only fault noticeable, like the Cyprians, is their tenderness during winter. Their high, bugle-like buzz when on the wing, made them very charming. During the low temperature I had no difficulty with them, but a change of the weather brought a change over them. They swarmed, and while doing so, lost their queen and became

vicious, entering other hives. Thinking the queen might still be in the hive, I divided the colony into five, but failed to find her. The ones occupying the old site, and which had the most bees, and the one likely to have the queen, I excised all royal cells, as they were building worker and no drone comb. I expected to find her all right the next day, but judge of my surprise when I found that the newly-made worker-comb contained upwards of a hundred empty queen-cells—a proof that the queen was not there, and a still better proof that bees do not shift eggs from one cell to another; and bees never had a better opportunity than in this case. The other four were examined with the same result—building worker comb—a case without parallel in our native bees.

During these manipulations, which were all performed in a cautious manner, the bees stung my hands dreadfully, entering my pockets and shoes, and stinging my feet through my stockings. They also went over the hedge, and stung one who had been stung well every year for sixty years, thus negating by ocular demonstration the inoculation theory. Thanks to a bee-veil, my face was not stung, but my hands were, and swelled very much—quite a new thing for me; besides, there was much pain. If the operator could keep perfectly steady and calm, he would escape many stings, but the slightest shake of the hand irritates them to the attack. Had they confined their stinging to those in or about the apiary, I would have been more hopeful and less sorry; but they attacked people on the public road a long way from their hive, and entered dwelling houses and stung people there. Simultaneous with this stinging, and the thermometer standing at from 70° to 84° in the shade, and the height of the honey season, they attacked my strongest Carniolan colony, carrying unmolested its honey away as fast as the latter colony carried it in.

The stinging and robbing had to be stopped, and I acted as judge and jury, sentencing them to be imprisoned without either bread or water for five days. Their incarceration during so high a temperature would have proved fatal, had not excellent ventilation kept them comfortable, but evidently not quiet. Every one of them set to work and proved themselves as good prison-breakers as they were thieves. The whole of them in a very short time had reduced the slide of their doorway an eighth of an inch, while one of them actually pushed aside a board on the top of the frames 18 inches long by 5 broad and  $\frac{3}{4}$  of an inch thick, and made their escape; while another pushed a half-inch slide mouth-piece aside and commenced their robbing and stinging with renewed vigor. Being sorry to see honest bees robbed by the brigands, I passed a new sentence and carried it into effect, and had them banished several miles from any hives, amidst clover fields, profuse in flower and aroma, and a paradise for both man and bees. On being

released from their hive, they attacked me again, for which I would not have cared, but they caused a lot of men in a hay-field to make a hasty retreat, as I did myself, to escape a reprimand and be a witness to seeing the whole of them being toppled into the rivulet from its brink on which they stand. Many of these Syrians were left behind which have entered other hives, and I am sorry to say these refugees are in no way altered, stinging and robbing as they did when in their own hives. The Cyprians I could manage, but the Syrians are unmanageable.

For the American Bee Journal.

**The "Contraction Method."**

DWIGHT FURNESS.

In an article on page 536, Mr. W. H. Stewart objects to the "contraction method," as described on page 437, and says: "I there find little that I would dare to put into practice." As I have dared to use this method with 12 or 15 colonies in 1884, and some 60 colonies the present season, permit me to answer the objections offered by Mr. S., and tell why I intend to continue the practice.

Mr. Stewart seems to forget that this method applies to comb honey production only, and argues from the stand-point of the extracted honey producer. All can readily see that these 5-frame colonies are in the best possible shape for winter and spring; stores are within reach and heat economized. Now, by inserting one empty comb at a time in the centre of the brood-nest, when we want bees reared for the coming honey harvest, and reversing the combs also when necessary, we get the full complement of 8 Langstroth frames solidly filled with brood. This secures the development of 2,000 bees per day, satisfies the needs of the average queen, and gives bees enough for comb honey production. Swarming usually takes place in the month of June. The new swarm is hived on 5 Langstroth frames (sometimes only 4) of foundation, and by the Heddon plan of preventing after-swarms, the entire field-working force of the colony is transferred to the new swarm. The sections are also removed to the new swarm at the time of hiving. In this new colony we have unusually favorable conditions for rapid honey storing—a large force of workers, but little brood to care for for some days, partly finished sections above, and no room for honey below. After seeing colonies so treated, literally piling up the honey, and outstripping all others, does any one wonder that I favor this management?

But says one, "The queen's prolificness will soon be checked for want of room to deposit eggs." Well, that is just what is intended. Of what earthly use are a great lot of bees that hatch after the honey-flow is over? These five reversible frames are first to be filled out, clear to the wood, with brood. We get five full combs of brood instead of three, as Mr. S. seems to expect, because the "dum-



mies," covered on both sides with bees, take the place of the outside pollenized and honey-filled combs of the eight and ten frame hives. Not one-third the usual amount of pollen, or bee-bread, is stored in the combs, for there is no room for it. The honey, for the same reason, is carried into the sections. The field is the best and cheapest store-house for pollen, in this locality, and the bees can get it there as fast as needed.

Remember that it is comb honey that we are after in this article, not bees; and we must not use honey in rearing bees that when hatched will not be more than able to supply their own wants. Our field is supposed to be already fully stocked, and we get all the increase desired by natural swarming. Why then should we burden our surplus-producing colonies by causing them to consume honey in rearing brood for nuclei colonies? I take "solid comfort" in handling these honeyless brood-chambers with no braced, bulging combs or dripping honey, but five perfect reversible sheets of brood.

This system works better with German and hybrid bees, because such bees are less prone to crowd the queen or clog the brood-frames with honey. Large producers of honey now quite generally admit that some black blood is essential to the best results in producing comb honey. Over half of my colonies worked on this plan are pure light Italians, and but little honey is left in the brood-chamber. In the latter part of the season, in this locality, bees usually get enough honey to keep them breeding rapidly; but if they did not, I should leave them a super containing sufficient honey for present wants. Although at present many of my colonies are destitute of honey and dependent upon nature for their supply, yet I have no trouble from robbing or swarming out.

The "wintering problem" has already been so thoroughly elucidated that time is all that is now necessary to set us right on that question.

Furnessville, Ind.

Pacific Rural Press.

### Concerted Action Necessary.

WM. MUTH-RASMUSSEN.

The object of the "Bee-Keepers' National Union" is to protect its members from all unlawful and unreasonable interference in their chosen pursuit, and, when necessary, to assist them in defending their interests. For this purpose each member will be charged an annual fee of 25 cents, besides an entrance fee of one dollar, which will be the first assessment, intended to be used for the defense of our brother bee-keeper in Wisconsin. As his will be a test case it is of vital importance to the whole bee-keeping fraternity that he gain this suit. If he loses, there will be no end of trouble to other bee-keepers, for many stand ready to attack us if they can only see the least chance of victory. We cannot afford this.

I shall not here go into a discussion about the benefit of insects, and principally of honey-bees, in fertilizing the flowers, without which fertilization no fruit or seed would be produced, nor of the alleged injury that bees do to ripe fruit; these subjects have been gone over often before, and would require a separate article. The question here is, whether it can be proved or not, that bees, when foraging for their food, molest grazing animals, and whether a bee-keeper can be compelled to discontinue his occupation because a neighbor, from ignorance, envy or malice, chooses to make him trouble through the courts.

The bee-keepers, as a class, are poor, and have not individually the means for expensive litigation; but most of them are intelligent and honest, and have no intention of troubling or interfering with their neighbors, and many of them take extraordinary precautions for this very purpose, which people in other business would never dream about. It is, therefore, only by concerted action that we can hope to defend ourselves. If it is once known that we have a powerful organization, ready and able to defend each of its members against any unjustifiable wrong or annoyance from outsiders, many will be slow to throw down the gauntlet.

Now let every bee-keeper come to the front and join the ranks by sending \$1.25 to Thos. G. Newman, 925 West Madison Street, Chicago, Ills. Do not lag behind. It is to your own personal interest, for you do not know when the time will come that you may be placed in the same predicament as our brother in Wisconsin. Independence, Calif.

For the American Bee Journal.

### Making the National Union useful.

ARTHUR TODD.

As a rule, where lawyers are defending a case in court, they cite cases previously decided in favor of their argument or analogous to the same. In my opinion the best hits lawyers make in court are the "points" given them by their clients. Bee-keepers are the clients; can we not strengthen our own cause by giving the lawyers the dates of cases decided on bee-matters? "Custom" makes law. Let us turn to the old countries of Europe, and carefully search out the customs and laws in vogue there; hunt up cases decided in England, France, Germany, Switzerland, Italy, Poland, Spain, Austria, and even little Greece, upon bee-matters. Let the President write (a circular letter in the various languages would answer) to each prominent bee-man in the countries named, for date of trial, point involved, and decision, that came under his notice, and if the report is printed in any bee-periodical, to give the date and the name of the paper. Further, appoint a translator, and let him go through the files of the German, French, and other foreign bee-papers, probably now in Mr.

Newman's library. Put the *British Bee Journal* in the hands of the lawyers. Let some such course as this be adopted, and our side will be able to produce case after case decided in favor of the bee-men.

Take the sole point of "identity." Can this owner of the sheep produce any one of the bees trespassing? Suppose he can! Can he swear to identity? Perhaps he will be advised to say that he cannot. The moment he does that, the bee-man's lawyer should demand a non-suit, saying that he can produce cases decided in favor of the bee-man on that very point. The bee-lawyer has but to search the pages of *L'Apiculteur* for the case of "Hamet et al.," tried in Paris some 15 years ago, and he can address the court thus: "Permit me to read you a report of a case tried in Paris, and the verdict entered for defendant, where the whole case turned on identity." The Judge would listen, and probably be influenced. Similar cases might be found, tried in other countries; let them be hunted up. Mr. Newman can turn to page 360, "*Cours Pratique D'Apiculture*," by H. Hamet, Paris, of which I am sure he has a copy, and therein he will find it stated as follows: "The proprietors of apiaries are responsible by the terms, Article 1385, Code Napoleon, for the injuries done to others by their bees." Under the actual administration of the law, the bee-keeper almost always escapes, for no one can recognize his bees; and alone, out of the hive, a bee has no owner, etc. On that very page are given references to decisions of judges in France on bee-matters. I say, "Hunt them all up;" do it at once; to be forewarned is to be twice armed.

Take the question of killing bees by yeast or other poison.—because ignorant persons think they spoil fruit, etc.—should we stand this? I say, no, sir! most emphatically. Mr. W. A. Pryal, of California, should quietly proceed to get absolute proof that certain parties did on certain days set a poison to kill certain animals or insects, and when the proofs are all ready, then the National Bee-Keepers' Union should "go for" those parties, and force the case into court.

We bee-keepers can prove that civilized nations, such as France, distinctly (See article 454 of the penal code, French) inflicts the penalty of six days to six months imprisonment upon every individual convicted of having killed, without necessity, an animal belonging to another. The Court of Cassation has ruled that "under the general denomination of domestic animals, Article 454 of the penal code, comprises the living beings which live, are raised, are nourished, and which are reproduced under the sheltering protection of man, and by his care." Now, as bees are lodged by man, and receive his care, they must be considered as domestic animals. Case decided March 14, 1861.

I find I have a copy of the French journal *Le Rucher*, for October, 1884, which contains abstracts of French bee-law, and I mail it herewith to

Mr. Newman, as a contribution to the fund of knowledge, which I hold to be "power."\* The programme of the National Bee-Keepers' Union, as set forth in the Constitution, is not broad enough for me. It should include the words: "Amend the laws relating to bees," in Article No. 2.

As far as I can learn, bees are outside the law in this country, being classed as *feræ naturæ*, which, being translated, I think means, "beings in a state of nature." If this be so, then the United States is behind the times, and should be made to amend the law and take the sensible course French practice has done, viz., when under care of man, then a domestic animal. The duty and object of the National Bee-Keepers' Union will later on be found to be compilation, and passing into recognized law of the United States of America, a bee code, at once simple, sensible, and based upon modern knowledge and modern trade requirements. The suggestions I now have made I deem to be both practical and practicable. If the National Bee-Keepers' Union follow some such plan, my sympathies will be with them, and my subscription, too.

Dropping law, I will now tell you a tale: Some years ago I had occasion to consult the great bee-man of France, Mr. Hamet, and I was in a hurry. He was not at his sanctum, where Mr. Newman and I interviewed him some years ago, but Madame volunteered to send the servant with me to guide me to the "Garden." Three or four blocks away I found Mr. Hamet in a Garden measuring some 40x30 feet, and to my astonishment, into this space was crowded some 50 bee-hives, so close that, as the bees rushed in and out, they pinged most unpleasantly every now and then on nose, eye or cheek. "Why so many hives here? was a natural question. Mr. Hamet replied: "Because of the sugar refineries." More bewildered still, I begged him to explain.

In the spring Mr. Hamet takes his bees to the country; as long as the honey-flow lasts, they stay there. The flow over, supers are taken off (straw-hives, remember), and back they come to this garden. Within a radius of half a mile are the largest sugar refineries in Paris. To these go the bees, and bring in crop No. 2, and not only a store of sugar honey is secured, but a steady, constant breeding is kept up during all July and August, and the hives are full of bees, to take away to the heather to gather crop No. 3.

But do not the bees get killed in the refineries, I asked? "*Mon Dieu, oui*—but what signifies a few bees killed, to the effect on the breeding produced by the inflow from those bees that escape?" was the answer.

Mr. Hamet went on to tell me how the sugar refineries brought suit against him for interrupting them in their business, stealing their sugar, etc., and how the refineries lost the day, not once, but twice, and I think a third time.

On what point did you beat them, I asked? Stooping to the ground, he

picked up a dead bee, and said: I filed a demand that they produce in court the bees that did the robbing, etc., and they brought a bushel of dead bees. Picking out one very carefully, I demanded of the plaintiff, will you swear that bee is one of my bees? No answer. I won the case each time, and moreover the Judge admonished the refineries to cover every door and window with wire gauze, and use every reasonable precaution to keep the bees out, or Mr. Hamet might have just cause to go against them for killing his bees without necessity.

To the best of my recollection I have given the facts. I am of the opinion that the full report of the case will be found in *L'Apiculteur*. Suppose that in this country it were once established law, that to kill a bee needlessly, or by carelessness be a party to the same, was a crime, punishable. Cannot my bee-brethren see that the owner of the deadly cider press would quickly have to go behind the screen, or down on him would be the National Bee-Keepers' Union.

Amend, define, and print the laws, and let each bee-keeper have a copy, and in case of need turn to the National Bee-Keepers' Union, but first of all, take the common-sense method to gain the day in the test case.

Philadelphia, O. Pa.

\*[Of the apicultural jurisprudence mentioned by Mr. Todd, we have translated from the French periodical, *Le Rucher*; and even if the items are of no value to Americans, they will be read with interest. Our translation of some of the items is as follows:—ED.]

#### APICULTURAL JURISPRUDENCE.

The bees which inhabit the woods, living in trees, hedges or thickets in the groves, without having been collected by any one, are numbered among the public things which belong to those who first find them.

The honey and the wax belonging to bees in the wild state, belong solely to those who find them.—*Fournel, Tr. du Voisinage, Abeille.*

When the bees have been captured and placed in the hives, they are the legitimate property of those who have them, and they ought not to be permitted to suffer by fraud or neglect.—*Vaudore, Droit Rural No. 205.*

In order for the swarm to belong to the owner of the land on which it is placed, the bees must not be enticed by fraud or trickery.—*C. civil, art. 564.*

According to the Rural Code, the owner of the fugitive swarm may demand and recover it; and the one who has seized it must give it up to him, (*Toullier, tome 4, No 50*), according to the condition expressed, that the said owner has not ceased to follow his swarm (*Loi du Sept. 28 to Oct. 6, 1791, T. I, Sec. 3, art. 5*); otherwise according to the Roman law, the swarm should be the property of the owner of the land whereon it settles.—(*Dig., Lib. 41, Tit. I, de acq. rer dom., page 5, Sec. 4.*)

As the result of this custom, in certain counties they follow up the swarms with a great noise to prove that they have not ceased to pursue them. It is desired that the law should be modified, and that there should be a return to the customs of St. Louis, which maintain the rights of the owner even after the bees had disappeared from his view, provided always that he can prove their identity; inasmuch as there exists a sure way to recognize them, at least during the first 36 hours after the issuing of a swarm.—(*Voir le Cours d'Apiculture de Hamet, 4th Ed., 1874, page 95.*)

The usufructuary, the farmer, the tenant and all other possessors of an uncertain title, have the right to claim the swarms which settle upon their lands; (*Fournel, du Voisinage*); but the said swarms belong to the land, and the tenant can only use their products.—(*Vaudore, tome II, No. 210.*)

The bees are naturally personal property, but they revert to the estate by intent, when the hives have been placed there by the proprietor for the cultivation of the land.—(*C. civ., art. 524.*)

According to the Rural Code, bees cannot be seized, nor sold for taxes or debts; except by the person from whom they were bought, or the one granting a title by lease or otherwise.—(*Titre I, Sec. 3, art. 2.*)

It must not be permitted, for any cause, to disturb the bees in their flight, (*Code penal, art. 479*), and even in case of lawful seizure they must not be moved during the months of December, January or February. (*Ib., art. 3.*) These prohibitions (*VIII and IX*) are not always enumerated by the Civil Code. Among the many unseizable articles, bees are not there mentioned.—(*Art. 592 et suiv. et 1041.*)

Article 454 of the Penal Code inflicts a punishment by imprisonment of from 6 days to 6 months, upon any one convicted of having unnecessarily killed any domestic animal belonging to another. The *Cour de Cassation* states it as a principle that "under the general name of domestic animals, art. 454 of the Penal Code is included the other higher animals which live, are fed, or reproduce themselves, under the protection of man." As the bees are housed by man, and receive his attention, they are considered domestic animals.—(*Arret de Cassation du 14 mars 1861.*)

According to *Vaudore*, the part-owner of a colony of bees cannot compel his co-partner to divide it; they must litigate their rights. (*No. 211.*) This opinion cannot but appear to be reasonable, inasmuch as the division would be impossible, without damage to both parties.

In certain countries they have established a sort of lease for bees; the proprietor yields his hive to a person to take of it; after the time fixed upon, they divide the proceeds.—(*Diction de Prost de Royer, Abeilles.*)

The owners of the hives of bees are responsible, according to article 1385 of the Civil Code, for injury which the



bees have done to others. Under the actual legislation of the Empire (*Vici-dessus*), the apiarist frequently escapes the penalty of this article, because no one knows who owns the bees when they are away from their hives. He is not responsible for his swarms when they abscond, for then they are only his property by law.

In principle (after the law of 1791), the culture of bees, like all other animals, is not under any restriction; any one has the right to keep as many colonies of bees as he wishes on his own lands, or to transport them from one place to another.—(*Vaudore*, 203.)

For the American Bee Journal.

### Preparing Bees for Winter, etc.

JAMES HEDDON.

In response to many solicitations, I will give the following advice, based upon my experience in feeding bees for winter.

We need not fear winter losses from any cause except bee-diarrhea. I do not know positively, but I am of the opinion that the consumption of pollen in confinement is the prime cause of bee-diarrhea. I am also further quite positive that bees never partake of bee-bread in confinement, if the temperature surrounding them does not sink below a certain point. I am fearful that honey often contains enough floating pollen to cause fecal accumulations during confinement, because pollen in this form cannot be rejected by the bees under any circumstances in which the consumption of such honey is going on. I do not believe that bees can void fecal accumulations in a dry state, and thus avoid diarrhea. Many years' experience by many bee-keepers with sugar syrup, has demonstrated that it is better as a winter food than honey.

#### HOW TO PREPARE THE SYRUP.

Enquirers ask for the results of my experience in preparing and feeding sugar syrup for bees in winter, which is as follows:

Into a boiling-pan put three pounds of water, heat it until it boils, and with a wooden-paddle stir this boiling water as you sift into it ten pounds of granulated sugar. When it is all dissolved, and the syrup is boiling, pour into it one-half of a tea-cupful of water, in which has previously been dissolved a large tea-spoon level full of tartaric acid. Stir it a moment longer, and then remove it from the fire. Feed the syrup while warm (not hot), if convenient. I use and prefer a large feeder covering the entire top of the hive, which holds 18 pounds at one filling.

This syrup will not crystallize if the acid is used in the proportion mentioned, and is of full strength, and the syrup boiled as directed. Such syrup is at once, when cool, of the consistency of well-ripened honey, and as the bees receive, store and seal it readily, I know of no reason why it is best to feed it to them thinner, and depend upon them to evaporate a portion of the water in it.

#### WHEN TO FEED THE SYRUP.

The best time to feed the syrup is at once—as soon as you are satisfied that all gathering of natural stores is past.

#### PREPARING THE HIVES.

There are two ways of preparing the hives to receive this food. No notice need be taken of the bee-bread which the combs may contain, providing a low temperature is properly guarded against. One way is to wait till the brood is all hatched out in the hive, then exchange with them honeyless combs for theirs containing their honey. I should prefer to feed into only five Langstroth combs, and in some way fill up the rest of the space contained in the hive made for eight or ten frames.

The hive is now ready to put on the feeder, and it is perhaps better to feed them about 25 pounds of this syrup. It is true that large colonies often consume not more than 2, 3, or 5 pounds when wintering well, from the time they cease to fly until they again fly in the spring; yet all must need several times more than this to carry them from the time of feeding until the time of gathering new honey the following year, and I see no reason for giving them only sufficient stores to sustain life during the period of confinement, unless one has some old honey or other inferior feed that he may wish to convert into brood and bees in the spring, before the bees will gather new honey. I am speaking for latitudes similar to my own.

For brood-rearing, when bees can fly almost daily, I would rather feed honey than sugar syrup, especially if bee-bread was not plentiful in the hives, or pollen in the field, owing to the fact of its containing nitrogen—the great tissue-making element.

Another and more simple way of preparing the hives, and one which I believe to be practically safe, is to work them through the summer in such a manner as to bring them out at the end of the honey-flow partially or almost entirely destitute of honey, (see my article on page 437), and feed the syrup on top of the stores which the hive contains, without moving a single comb.

I shall try both of the above plans the present season. The latter plan embraces the advantages that, first, no preparatory manipulation is required, and second, the bee-keeper does not have to wait for the last of the brood to hatch from the hive. I believe it to be almost certain of success. The sugar-syrup stores will be placed where its consumption will take place mainly during the period of confinement.

#### THE PROPER TEMPERATURE.

I am persuaded that 45° Fahr. (ranging above that point rather than below) is the proper degree for the repository. Of course this would be a deadly temperature for the interior of the hive, and I should prepare the hives with only lower ventilation. If a cellar is very damp, such dampness will not tend to produce bee-diarrhea, but it will injure the hive, and may be avoided by placing on its top a

case or super filled with chaff, shavings or other absorbent.

Now, I fancy I hear Messrs. Boomhower, H. V. Train and others say, "Why, bees will always winter well in that way upon their natural stores!" The reports from these gentlemen have given us evidence that such is true of their locations, but I fear it is not true in my own, as well as in many others. I wish it was, for I do not like to run in debt for sugar while I have on hand tons of the choicest white extracted honey, for which, in bulk, I can find no purchaser.

After the temperature is properly cared for, how much then depends upon the quality of the food, remains for experiment, and I shall be one to try to solve the problem.

The amount of water, acid and sugar mentioned in the above way of preparing the syrup, is given merely as a proportion. I boil half a barrel of sugar at one time, on a common cook-stove, in a flat copper-boiler made for the purpose, and which covers the entire top of the stove. It would be better to have the large tea-spoon a little rounding with the tartaric acid than any scant of level full; and one had better feed his bees twice what they need than any scant of their necessities. They will not waste any.

#### REPLIES TO VARIOUS CRITICISMS.

I wish to say to Mr. Gresh (page 551) and others, that I have used the word "prime" correctly. It has many definitions, in which case I, of course, have a choice. It is defined by Webster, and used in common conversation, as "first in rank, degree, dignity or importance, first in excellence; of the highest quality."

I also wish to say that I know Mr. Gresh is mistaken in supposing that deep frames may have any advantages over shallow ones for wintering. True theory and practical experience, both, deny it.

Prof. Cook only said that Mr. Doolittle's bees had the odor of diarrhea, and seemed to be without pollen, as Mr. Gresh now states it, which is quite different from his former statement.

I did not read Mr. Doolittle's article on page 69 (1884), until my attention was called to it by a friend two weeks ago. That article is prior to my article, but not to my work which is three years old, so I cannot "give him priority in using the system." Besides, I find that it is not a systematized summer and winter management, as meant by me in my former article. According to Mr. Doolittle's statement, he has in September "from 18 to 22 pounds of honey in the frames, with a very small colony of bees for wintering." Now, this is not systematized as a necessary summer and winter management, for it leaves the hives much in the same condition as when managed without contraction, while my own method brings them out quite short of stores, and in a good condition for the introduction of sugar syrup. This is the way it looks to me, yet it is of no importance, for I only stated what I believed and in keeping with the facts,

and I am pleased to have Mr. Doolittle's testimony (whether prior or not) in favor of so valuable a method.

I deem it unnecessary to occupy any more space in replying to criticisms on my hive-contraction method, as I think that all will fully and clearly understand it as given in my article on that subject, on page 437.

Dowagiac, 9 Mich.

## SELECTIONS FROM OUR LETTER BOX

**Frosty Nights.**—Prof. A. J. Cook, Agricultural College, 9 Mich., on Sept. 2, 1885, says:

We had a frost last night. I fear that it has killed the corn. It will be very hard on the farmers.

**Introducing Virgin Queens.**—W. Harmer, Manistee, 10 Mich., says:

I would like to say in answer to a question on page 534, by Mr. Hicks, (that is, if he means direct introduction), that his queens may have been too old. Has he ever tried letting them run in at the entrance when they are only a minute old? If he will try that, I think he will report 85 per cent. success instead of that amount loss. I think that as soon as the bees miss their queen, is a good time to introduce another.

**Preparing and Feeding Sugar Syrup.**—H. H. Stratton, Grassy Cove, O. Tenn., asks the following:

Will Mr. Heddon give, through the BEE JOURNAL, his method of preparing and feeding sugar syrup to bees for winter stores? Also, the best kind of sugar, cost, etc., considered?

[Use the purest granulated sugar. Answers to the other queries may be found on page 571.—ED.]

**Do Bees Steal Eggs?**—Mrs. W. H. Smith, Mount Salem, Ont., on Aug. 31, 1885, says:

On page 537, Mr. C. G. Beitel writes under the heading, "Do Bees Steal Eggs?" and closes by saying that he would like to hear the experience of others on this subject. Here is mine: On May 15, I removed an Italian-hybrid queen from a strong colony, and on May 29 I gave them an Italian queen. She proved to be a good layer, and in a short time every frame was nearly filled with brood, and she continued to keep them full for some time, when suddenly she ceased to lay, and for several weeks she remained idle. On one occasion I made a search for her, fearing that she had been lost or destroyed, but I found her there apparently all right. I closed the hive, feeling satisfied that she would soon commence laying again. In the course of a few weeks I discovered young larvae, and all went on nicely—the empty combs

were soon filled with brood in all stages, but alas, all the young brood proved to be black bees. The matter had been a problem to me until I read Mr. Beitel's article which, to me, looks quite feasible. In my case my theory is, that as the queen remained inactive so long, the workers determined to supersede her, and having no eggs nor larvae stole them from a black colony. This I do know, that once they were an Italian colony, and now they are black, and the change took place without the aid of hands.

**Finishing Partly-Filled Sections.**—S. C. asks the following questions:

1. Will unsealed honey in sections crystallize or candy during winter?
2. If it does, when put back on the hives the following season will the granulated honey be carried out by the bees, or will the heat from them return the honey to its liquid state, and the sections be completed in good shape?

[1. Yes; so will sealed honey in many cases. The sealing tends to prevent graining, but there is such a difference in the nature and amount of acid of different kinds of honey, that while some will go all through a cold winter unsealed without graining, other samples will grain sealed over in the comb, within a few weeks after being removed from the hives.

2. Sometimes the granulated honey will be carried out by the bees, but I have known a case where new honey was placed on top of it, and all was then sealed over. The heat of the hive is not sufficient to liquify grained honey; a degree of heat is required that the comb could not bear.—JAMES HEDDON.]

**Cool Nights, but no Frost.**—H. R. Dorr, Worden, 9 Ills., on Sept. 2, 1885, says:

Bees have done well for the past three or four days working on heart's ease. They came nearly starving during July and August and the latter part of June. We are having very cool nights in this part of the State. This morning, at sunrise, the mercury was down to 45°, but there has been no frost yet.

**Feeding Bees for Winter.**—Thos. J. Corcoran, Cincinnati, 9 O., asks the following questions:

1. How many pounds of sugar does it require to winter a colony of bees where it takes 25 pounds of honey?
2. Can a colony be wintered on 7 Langstroth frames? How are they prepared?
3. What month is the best time to feed them their winter stores?

[Mr. Corcoran will probably find the answers to these questions in Mr. Heddon's article on page 571.—ED.]

**Varieties of Bees.**—W. H. Smith, Mount Salem, Ont., on Sept. 1, 1885, says:

I have sent you a sample of some bees. Please tell, through the BEE JOURNAL, why it is that such a variety of bees can be produced from one mother, viz., black and one-and-two band workers. The mother has the appearance of being a good Italian queen.

[Simply this—the mother mated with an impure drone.—ED.]

**Canadian Members.**—W. F. Smith, Walsingham, Ont., on Aug. 29, 1885, writes as follows:

Can Canadian bee-keepers become members of the Bee-Keepers' Union? Please answer in the BEE JOURNAL.

[Certainly they can; an adverse decision in regard to bee-keeping in any of the States would be detrimental to Canadian apiarists, and hence they should take a lively interest in the work of the Union.—ED.]

## Convention Notices.

✂ The Kentucky State Bee-Keepers' Society will meet in Walker Hall, at Covington, Ky., on Sept. 23 and 24, 1885. The Reverend L. L. Langstroth is expected to be present, and all bee-keepers are invited to attend.  
J. T. CONNLEY, Sec.

✂ The Progressive Bee-Keepers' Association, of Western Illinois, will meet at Macomb, Ills., on Thursday, Oct. 15, 1885. Let everybody come and have an enjoyable time. Good speakers are expected.  
J. G. NORTON, Sec.

✂ The 4th semi-annual meeting of the Wabash County Bee-Keepers' Association will be held at North Manchester, Ind., on Oct. 10, 1885, in the G. A. R. Hall, Union Block. First session at 10 a. m. All bee-keepers are cordially invited to be present.  
J. J. MARTIN, Sec.

✂ The Western Bee-Keepers' Association will hold its fourth annual meeting in Independence, Mo., on Thursday and Friday, Oct. 10 and 11, 1885. The Association will endeavor to make this the most interesting meeting yet held, and will spare no pains within its means to make it valuable to all. Several of our most prominent bee-keepers have signified their intention to be present.  
C. M. CRANDALL, Sec.

✂ The New Jersey and Eastern Bee-Keepers' Association having accepted an invitation to meet with the Mercer County Board of Agriculture, of Trenton, N. J., will hold their semi-annual convention in the Grand Jury Room of the Court House at Trenton, N. J., on Thursday and Friday, Nov. 5 and 6, 1885, at 10 a. m. A full attendance of the members is requested. To all persons interested in our vocation, we extend a cordial welcome. The committee of arrangements have secured hotel accommodations at reduced rates.  
WM. B. TREADWELL, Sec.

## The National Bee-Keepers' Union.

MEMBERS RECEIVED SINCE LAST ISSUE.

Babb, Enoch.  
Billings, L. P.  
Dorr, Dr. H. R.

Edson, A. S.  
Taylor, R. L.



WEEKLY EDITION  
OF THE  
**AMERICAN**  
**BEE JOURNAL**

PUBLISHED BY  
**THOMAS G. NEWMAN & SON,**  
PROPRIETORS,  
923 & 925 WEST MADISON ST., CHICAGO, ILL.  
Weekly, 25¢ a year; Monthly, 50¢ cents.

**ALFRED H. NEWMAN,**  
BUSINESS MANAGER.

## Special Notices.

**The Baking and Roasting Pans,** for baking bread, cake, puddings, pot-pie, fish, etc., and for roasting meats, poultry, game, oysters, etc., are excellent. We have two in use, and like them very much. They are made by the patentees, Richey & Williams, Sing Sing, N. Y.

**To Correspondents.**—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

If your wrapper-label reads Sept. 85, please remember that your subscription runs out with this month. Renew at once, so as not to lose any numbers.

Our rates for two or more copies of the book, "Bees and Honey," may be found on the Book List on the second page of this paper. Also wholesale rates on all books where they are purchased "to sell again."

**Bees and Poultry.**—But few out-door pursuits go so well together as bees and poultry. Give the poultry the necessary attention in the morning and evening, and give the bees such of the time between as becomes necessary. We have made arrangements by which we can supply the American Poultry Journal (price \$1.25) and the Weekly BEE JOURNAL both for \$1.75 a year. This is a rare opportunity to get two standard papers for about the price of one.

**Preserve your papers** for reference. If you have not got a Binder we will mail you one for 75 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

**To give away a copy of "Honey as Food and Medicine"** to every one who buys a package of honey, will sell almost any quantity of it.

## Honey and Beeswax Market.

Office of the AMERICAN BEE JOURNAL,  
Monday, 10 a. m., Sept. 7, 1885.

The following are the latest quotations for honey and beeswax received up to this hour:

### CHICAGO.

**HONEY.**—Receipts of comb honey are coming more freely, and the demand is about equal to it. Yet 15¢ per pound is all that can be obtained. Extracted honey ranges from 54¢ for the different grades and styles of packages.

**BEESWAX.**—24¢ per lb.  
R. A. BURNETT, 161 South Water St.

### BOSTON.

**HONEY.**—There is no change in the market, to speak of. We have had some new Vermont white clover honey in 1-lb. sections, which is very fine. There is a large crop in that State. Prices remain as follows: For 1-lb. sections, 106¢; 18¢; for 2-lbs., 14¢; 16¢. There is little or no sale for extracted.

**BEESWAX.**—30¢ per lb.  
BLAKE & HIPLEY, 57 Chatham Street.

### NEW YORK.

**HONEY.**—The honey market is very quiet, and will continue so until fall trade opens up. Some old stock is on the market yet, with small shipments of new comb honey arriving. Southern extracted honey is coming in very freely. Quotations are as follows for comb honey: Fancy white in 1-lb. sections, 146¢; fair to good in 1-lb. sections, 126¢; fancy white in 2-lb. sections, 136¢; fair to good in 2-lb. sections, 116¢; fancy buckwheat in 1-lb. sections, 96¢; fancy buckwheat in 2-lb. sections, 76¢. Extracted white clover, 66¢; buckwheat, 56¢; Southern, per gallon, 55¢.

**BEESWAX.**—Prime yellow, 25¢ per lb.  
MCCAUL & HILDRETH BROS., 34 Hudson St.

### CINCINNATI.

**HONEY.**—The market is quiet with fair demand for extracted, and an abundance of offerings from commission houses and producers. Prices range between 46¢ on arrival. There is but little new comb honey in the market, with an occasional demand. Prices nominal.

**BEESWAX.**—Is in fair demand with liberal offerings, and brings 24¢ on arrival.

C. F. MUTH, Freeman & Central Ave.

### SAN FRANCISCO.

**HONEY.**—New comb honey sells slowly because of last year's crop now on hand. We now quote: Extracted, old dark 44¢; new white, 54¢; dark, 44¢. No extra white coming forward.

**BEESWAX.**—Quotable at 23¢.—wholesale.  
O. B. SMITH & Co., 425 Front Street.

### CLEVELAND.

**HONEY.**—The new crop is beginning to arrive and is selling at 14-15¢ per lb. for choice 1-lb. sections. Old honey is very dull—none selling although freely offered at 10-12¢. Extracted, as usual is not in demand in our market.

**BEESWAX.**—20-22¢ per lb.  
A. C. KENDALL, 115 Ontario Street.

### KANSAS CITY.

**HONEY.**—Considerable new honey is coming in and is readily taken at the following prices: 14¢ for choice 1-lb. sections; 12¢ for choice 2-lbs.; 10¢ for choice California 2-lbs.; and 8¢ for off lots. Extracted is moving freely at 46¢ for Miss., La., and Tex. honey; 56¢ for good buckwheat and other similar kinds; 66¢ for choice white clover and basswood, and for choice California white sage.

**BEESWAX.**—Slow at 24¢.

CLEMONS, CLOON & Co., cor. 4th & Walnut.

**Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview by sending the names to this office, or we will send them all to the agent.

All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. The prices are as follows:

For 50 colonies (120 pages).....\$1 00  
" 100 colonies (220 pages)..... 1 25  
" 200 colonies (420 pages)..... 1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable

**The largest cabbage growers in the world** (W. M. Johnson & Co., of Chicago), use upwards of 5,000 acres of land for growing cabbages. Last season they manufactured 19,000 barrels of sauerkraut, besides shipping 467 carloads of cabbages to Eastern cities. They use and recommend Tillinghast's Puget Sound Cabbage Seeds. The disseminator of this renowned brand of seeds, Isaac F. Tillinghast, of La Plume, Pa., in order to introduce them into every county in the Union, has organized a Seed and Plant Growers' Association. One reliable party in each town in the Union is being enrolled as special agent, and is supplied with seeds in trade-marked packages, and also instruction books which will enable any one to grow cabbage plants successfully anywhere. Parties desiring seeds of plants, will, upon application to Mr. Tillinghast, be furnished with the addresses of agents nearest them, from whom they may be obtained. Purchasers are thus saved unnecessary express charges, and assured of obtaining the best strain of cabbage seeds or plants which can be procured.

This association thus furnishes one man in each town—the appointed agent—a good cash-paying business in selling seeds and growing and supplying plants. There are still many excellent localities unoccupied, and any one so situated as to act as agent for this association should address Mr. Tillinghast as above, for particulars in regard to it.

Mr. Tillinghast has also just put upon the market a "Cabbage Pest Powder," which is entirely harmless to the plant at any stage of its growth, and also harmless to persons eating them, yet the most effective destroyer of lice, fleas and worms which has ever been compounded. It retails at 24 cents per pound.

## Advertisements.

## HONEY

WE are now in the market, and will be during the entire season, for all honey offered us, in any quantity, shape, or condition—just so it is pure. We will sell on commission, charging 5 per cent.; or, if a sample is sent us, we will make the best cash offer the general market will afford. We will handle beeswax the same way, and can furnish bee-men in quantities, crude or refined, at lowest market prices. Mr. Jerome Twichell, our junior member in this department, has full charge, which insures prompt and careful attention in all its details.

Sample of comb honey must be a full case, representing a fair average of the lot. On such sample we will make prompt returns, whether we buy or not.

**CLEMONS, CLOON & CO.,**

36A171 KANSAS CITY, MO.

**Dadant's Foundation Factory,** wholesale and retail. See Advertisement in another column

1885. GET THE BEST. 1885.

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## THE BEE-KEEPERS' HANDY-BOOK

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36A171 HENRY ALLEY, Wenham, Mass.

## LOS ANGELES.

### HOMES IN SOUTHERN CALIFORNIA.

"Stern winter smiles on that auspicious clime,  
The fields are florid with unfading prime;  
From the bleak pole no winds inclement blow;  
Nould the round ball or fake the fleecy snow;  
But from the breezy deep the bleas'd inhale,  
The fragrant murmurs of the western gale."  
—Homer.

**F**ULL information concerning the garden spot of the world, beautiful LOS ANGELES, THE LIVELIEST AND MOST PROSPEROUS SECTION OF THE PACIFIC COAST, furnished by the Los Angeles **Weekly Mirror**, a mammoth 72 column PAPER, the best weekly in California. SEND FOR IT. Single copy, three two-cent stamps; six months, \$1; one year, \$2.

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by return mail.—I am now up with my orders, and can send Queens by return mail. My Queens are almost without an exception purely mated. My bees have worked just thick on red clover, from the time it bloomed until the present time.

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**\$200,000**

in presents given away. Send us 5 cents postage, and by mail you will get free a package of goods of large value, that will start you in work that will at once bring you in money faster than anything else in America. All about the \$200,000 in presents with each box. Agents wanted everywhere, of either sex, of all ages, for all the time, or spare time only, to work for us at their own homes. Fortunes for all workers absolutely assured. Don't delay. H. HALLETT & Co., Portland, Maine.

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Square Glass Honey Jars, Tin Buckets,  
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Send 10c. for Practical Hints to Bee-Keepers.

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OR EXCHANGE. Improved Stock Farm 80 miles from Chicago. Will sell cheap for cash or exchange for stock of goods—or western land. Address,  
30A6t T. J. CAIRNS & CO., Janesville, Wis.

**60**  
11A1y

New Style, Embossed Hidden Name and Chromo Visiting Cards, no 2 alike, name on, 10c. 13 packs \$1; warranted best sold. Sample book, 4c. L. JONES & CO., Nassau, N. Y.

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FOR SALE CHEAP!

96 ACRES, hill-land, 1/4 well-stocked with apples, peaches, pears, plums, quinces, grapes, and small fruit, in fine bearing condition. The remainder in pasture, grass, grain, etc. Apiary contains 140 ITALIAN COLONIES in Langstroth hives. Bee-house and all modern appliances for apiculture, in as good location for bees and honey as can be found. Good 10-room house, beautifully located, commanding a view of the city, river and surrounding country. New barn and out-buildings, cistern, never-failing springs, etc. Reason for selling—age and ill-health.

33A6t S. A. STILLMAN, LOUISIANA, MO.

## NEW ONE-POUND HONEY PAIL.



THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a ball or handle, making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. PRICE, 75 cents per dozen, or \$5.00 per 100.

THOS. G. NEWMAN & SON,  
923 & 925 West Madison St., CHICAGO, ILL.

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WE ARE now making a specialty of rearing fine ITALIAN QUEENS. All Queens are bred from the purest and best of mothers, and the cells built in full colonies. We have one of A. I. Root's very best, selected, tested, imported Queens; also quite a number of very superior home-bred Queens from the apiary of "Cyula Linswik;" besides this, we have our own original stock, which was built up from Dadant imported stock, and from Queens obtained from several of our best breeders. We are not trying to see how cheaply we can rear Queens, but what GOOD ones we can furnish. No Queens will be sent out that would not be used in the home apiary. Single Queen, \$1.00; six for \$5.00; twelve or more, 75c. each. Tested Queens, \$2.00 each. Full colonies, \$5.00 each. Make money orders payable at Flint. Address

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Entrance Feeders, Top and Bottom Feeders,  
Hive-Lifting Device, Honey Extractors,  
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WIN more money than at anything else by taking an agency for the best selling book out. Beginners succeed grandly. None fail. Terms free. HALLETT BOOK CO. Portland, Maine.



## Bee-keepers' Supplies,

Standard Langstroth,

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And all other kinds of Hives,

MADE TO ORDER,

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I shall supply anything you need in the Apiary. Send for Illustrated Price List.

W. E. CLARK, successor to L. C. Root,  
7A1y ORISKANY, Oneida County, N. Y.

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## QUEENS by Return Mail!

AT THE FOLLOWING LOW RATES:

Bred from my Best Strains of Italians and Albino!

Untested Queens.....each	\$ 1 00
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Warranted " " " " " " " " " " " "	1 10
" " " " " " " " " " " "	6 00
Tested " " " " " " " " " " " "	11 00
Selected Tested Queens.....each	2 00
" " " " " " " " " " " "	2 50

Descriptive Price-List free. Address all orders to

WM. W. CARY, - Coleraine, Mass.,  
(Successors to Wm. W. Cary & Son.)

N. B.—On a single order for 50 Queens, we will give 10 per cent. discount from the above list. 29Atf

## Bee-Hives, Sections & Honey-Boxes

### GREAT REDUCTION.

DEALERS and large consumers will find it to their interest to write us for special stocking-up prices—either for present or future delivery.

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